

BAXI BOSTON

ALL MODELS

FLOOR STANDING OPEN FLUE (OF)

CENTRAL HEATING BOILERS

INSTALLATION AND SERVICING INSTRUCTIONS

GAS TYPE G20 (Natural Gas)

BAXI BOSTON 80 OF - G.C. No 41 077 65

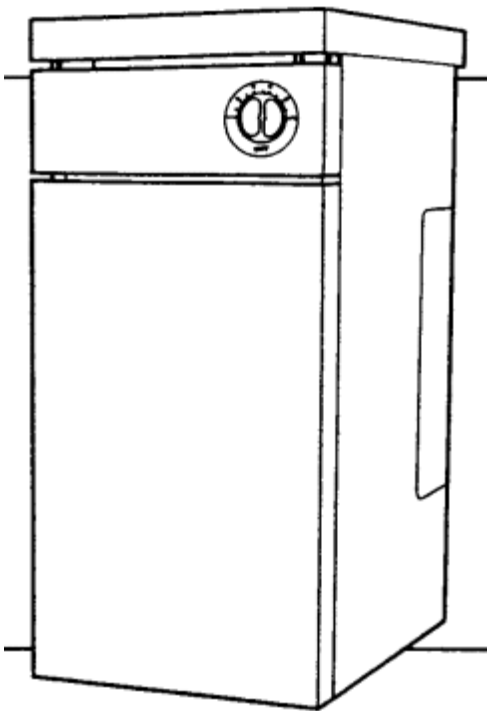
BAXI BOSTON 70 OF - G.C. No 41 077 64

BAXI BOSTON 60 OF - G.C. No 41 077 63

BAXI BOSTON 50 OF - G.C. No 41 077 62

BAXI BOSTON 40 OF - G.C. No 41 077 61

Please leave these Instructions with the User



Installation Instructions

INTRODUCTION

This is a range of Floor Standing Open Flue Boilers. There is a choice of outputs listed below:

BOILER TYPE	HEAT OUTPUT	
	kW	Btu/h
80 OF	20.8 to 23.4	71,000 to 80,000
70 OF	17.8 to 20.5	61,000 to 70,000
60 OF	14.9 to 17.6	51,000 to 60,000
50 OF	12.0 to 14.7	41,000 to 50,000
40 OF	9.1 to 11.7	31,000 to 40,000

The boilers share a common outer case within which there is adequate space to fit a central heating pump using standard fittings.

All appliances are designed for use on Gas Type G20 (Natural Gas) only, at supply pressure 20 mb.

Each appliance consists essentially of two components, namely:

1. COMBUSTION CHAMBER with heat exchanger, burner and controls.
2. OUTER CASE.

Installation Requirements

GENERAL

The installation must be carried out by a competent installer and be in accordance with relevant BS Codes of Practice, I.E.E. Regulations, Gas Safety Regulations, Building Regulations and by-laws of the Local Water Undertaking. References should be made to BS 6891, BS 6798, BS 5440 Part 1 & 2 and BS 5449.

SITING

These appliances must be fitted on a suitable outside or inside wall with due considerations of the open flue requirements.

They should NOT be installed in a bathroom, bedroom or bed sitting room.

A new or existing cupboard or compartment used to enclose the boiler must be constructed specifically for this purpose.

Details of essential features of cupboard-compartment design are given in BS 5440:2.

CLEARANCES

The minimum vertical areas required for the appliances depend on the appliance rating and its application. The details are given in [fig 5](#).

Work Tops
 Above Boiler (All Models) 100mm (4 in) Min
 Sides See [Fig 5](#)

VENTILATION

Detailed recommendations for air supply are given in BS 5440:2.

The following notes are intended to give general guidance. The room in which the open flue unit is situated requires an air vent which should be direct to outside or to a room which itself has an air vent direct to outside. Where the boiler is in a compartment with air vents direct to outside the room containing the compartment does not require the provisions of additional ventilation.

APPLIANCE	MINIMUM FREE AREA OF AIR VENT	
	cm ²	in ²
80 OF	102	16
70 OF	84	13
60 OF	74	11.5
50 OF	57	9
40 OF	39	6

The actual minimum effective area requirements of cupboard/compartment air vents are based upon the rated input of the appliance.

Ventilation areas required:

APPLIANCE		HIGH LEVEL VENT AREA		LOW LEVEL VENT AREA	
		cm ²	in ²	cm ²	in ²
80 OF	Compartment	271	42	542	84
70 OF	vented to	232	36	464	72
60 OF	adjacent	212	33	423	67
50 OF	room	176	27	353	55
40 OF		140	22	281	44
80 OF	Compartment	136	21	271	42
70 OF	vented to	116	18	232	36
60 OF	outside	106	17	212	33
50 OF	building	88	14	176	27
40 OF		70	11	140	22

FLUE ARRANGEMENT

The 80, 70 OF are intended for connection with 125mm (5 in) flue tube. The 60, 50 and 40 OF are intended for connection with 100mm (4 in) flue tube.

For full information on flues refer to BS 5440, but the general requirements are as follows:

- 1) The flue should be kept as short and as warm as possible.
- 2) Give maximum possible vertical rise from the appliance before using any bends (preferably at least 600mm (24 in)). Avoid the use of right angled bends.

3) Terminate in an approved terminal preferably above ridge height but at least above the eaves of a pitched roof.

4) If Twin-wall type flue tubing is to be used the inner tubing of the boiler adaptor must not project into the draught diverter of the boiler. A boiler adaptor which meets this requirement is obtainable.

5) An existing brick chimney should be lined with acid and moisture resistant materials such as stainless steel flexible flue pipe. This is particularly important if the flue is above 6.5 metres (20 ft) in height and not wholly internal. **WHETHER OR NOT THE CHIMNEY IS TO BE LINED IT MUST BE SWEPT THOROUGHLY BEFORE THE INSTALLATION.**

6) Whatever type of flue is used it must be properly supported and not simply supported on the boiler.

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WATER CIRCULATION SYSTEMS

(see pages 8 & 9)

The appliances are only suitable for connection to a cistern supply and can be used with:-

1) Pumped domestic hot water and pumped central heating systems.

2) Gravity flow domestic hot water and pumped central heating systems.

(a) With 28mm pipes the minimum circulating head for gravity domestic hot water should not be less than 1 metre (3 ft 3 in) measured vertically from the flow connection on the boiler to the flow connection on the cylinder. At this head, the maximum horizontal distance measured along the run of the pipe should not exceed 3 metres (10ft). Greater horizontal distances and smaller pipe sizes are acceptable with suitably increased heads. Allowances must be made for pipe bends where necessary.

(b) If the above conditions are not easily met then pumped primaries should be used.

(c) Gravity flow and return pipes should be laid to maximum fall to avoid air locks.

The following points are of particular importance:

1) **THE WATER SPREADER MUST BE FITTED TO THE PUMPED RETURN CONNECTION ON ALL SYSTEMS.**

2) The appliances must not be used on sealed systems.

3) The system must be designed to avoid reverse circulation.

4) The static head must not exceed 30 metres (100ft) of water.

5) The boilers must only be used with an indirect cylinder when domestic hot water is required.

6) Drain points should be fitted at the lowest points in the system.

7) The system must be designed such that gravity circulation in the heating system does not take place when the pump is not running.

GAS SUPPLY

The gas connection is located at the bottom left hand side of the appliance and is RC1/2 (1/2 in B.S.P.T. internal). Ensure that the pipework from the meter to the appliance is of adequate size. Do

not use pipes of a smaller size than the appliance gas connection.

ELECTRICAL SUPPLY

External wiring must be correctly earthed and polarised and in accordance with I.E.E. Regulations.

For wiring instructions see ' [Electrical Connections](#)'.

APPLIANCE DETAILS (all models)

HEIGHT 900mm (35 1/2 in)

WIDTH 395mm (15 1/2 in)

FORWARD PROJECTION

FROM THE WALL 535mm (21 in)

BOILER TAPPINGS 4 x Rp1 (1in BSP internal)

and

1 x Rp3/4 (3/4 in BSP internal)

ELECTRICAL SUPPLY 240v~50Hz - 3 amp fuse

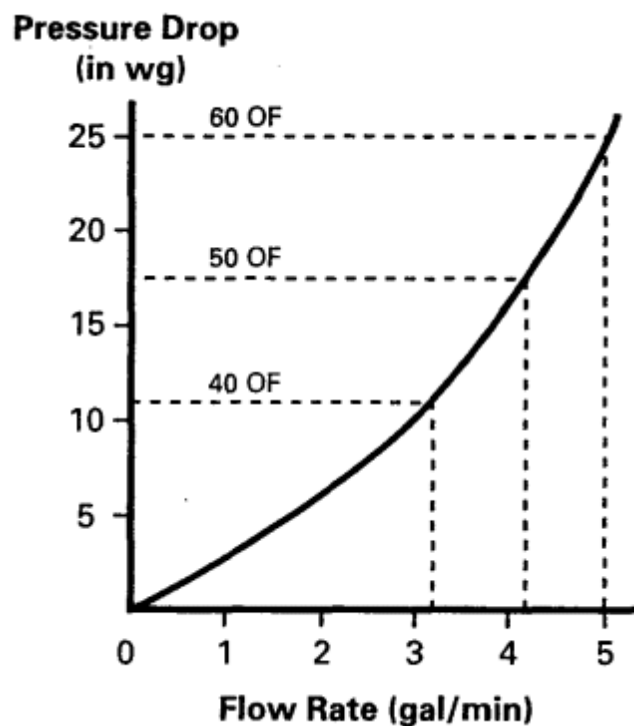
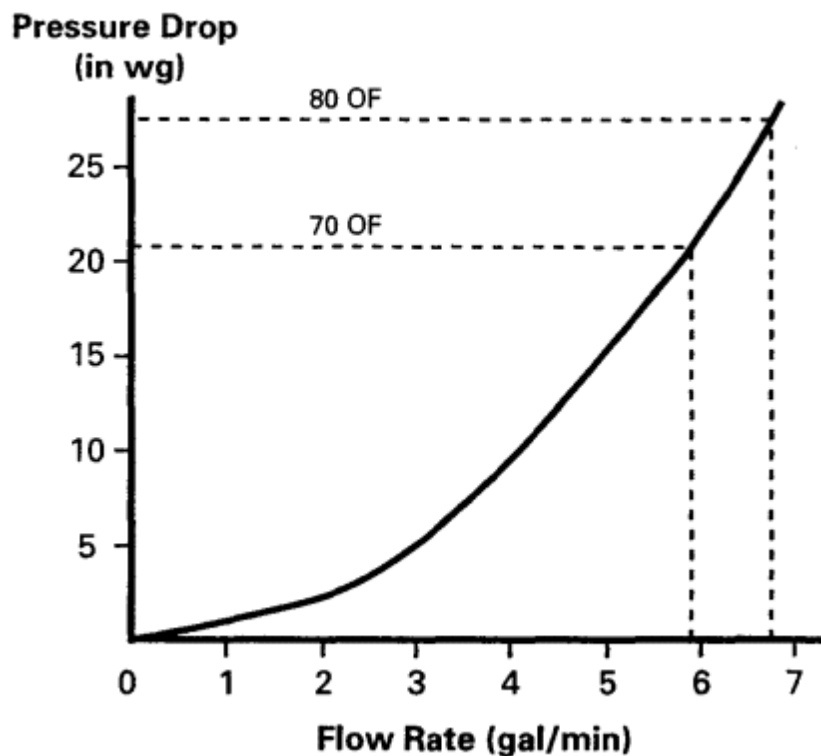
GAS CONNECTION Rc1/2 (1/2 in BSPT internal)

MAX. WORKING HEAD 30m (100ft)

THERMOCOUPLE OUTPUT 10 - 15mv

APPLIANCE	WEIGHT EMPTY	WATER CONTENT
80 OF	98 kg	7 litres
70 OF	(216 lbs)	(1.54 gallons)
60 OF		
50 OF	79.2 kg	5.1 litres
40 OF	(174.6 lbs)	(1.12 gallons)

HYDRAULIC RESISTANCE CHARTS



Fitting the Appliance

PREPARATION

- 1) A sound and level floor which conforms to the requirements of the Local Authorities and Building Regulations must be provided.
- 2) Select the most suitable position for the boiler taking due account of any clearances required for the safe and proper functions of the boiler and its associated controls.

- 3) Manoeuvre the boiler into position so that the two spacer pips on the rear of the draught diverter touch the wall.
- 4) Connect the water flow and return pipes (see Boiler Connections).
- 5) Connect the flue pipe, making sure that the flue trim is placed in position before the final connection is made.
- 6) Partially fit the outer case.
- 7) Connect the electrical supply (see [Electrical Connections](#)).
- 8) Complete the installation (see [Commissioning the Unit](#)).
- 9) Complete the assembly of the outer case.

BOILER CONNECTIONS ([Fig 3](#))

The boilers have 5 water connections:

- 2 x Rp1 (1 in BSP internal) return connections.
- 2 x Rp1 (1 in BSP internal) flow connections.
- 1 x Rp3/4 (3/4 in BSP internal) flow connection.

The 1 x Rp3/4 (3/4 in BSP internal) flow connection is for use when the pump is fitted inside the outer case. For other installations this connection must be plugged. THE WATER SPREADER MUST BE FITTED TO THE PUMPED RETURN CONNECTION ON ALL INSTALLATIONS. THE MARKS ON THE SPREADER MUST BE BETWEEN THE TWO MARKERS ON THE COMBUSTION CHAMBER ([Fig 4](#)).

The spreader has one mark on the 80, 70 and has two marks on the 60, 50, 40.

When installing the pipework ensure that:

- a) Suitable union fittings are used at the first joint of all boiler connections.
- b) The pipework will run through the cutouts provided in the outer case ([Fig 2](#)).
- c) Drain off points are provided as appropriate.
- d) Pipe sizes are suitable for the system design.

Pump ([Fig 1](#))

A suitable pump e.g. Grundfos Selectric 4 or SMC Commodore with ball type isolating valves and 22mm compression fittings may be fitted inside the outer case.

The pump should be connected to the 3/4 in flow connection on the front of the heat exchanger using the following standard fittings.

- | | | |
|-----|---------|---|
| A - | 1 off - | Elbow 3/4 BSP male x 3/4 BSP female |
| B - | 1 off - | Conex straight connector 3/4 BSP male
x 22mm copper |
| C - | 3 off - | 22mm Yorkshire elbows |
| D - | 1 off - | when installing the 60, 50 and 40
60mm long - 22mm copper tube |
| D - | 1 off - | when installing the 80 and 70
92mm long - 22mm copper tube |
| E - | 1 off - | 100mm long - 22mm copper tube |

- F - 1 off - 145mm long - 22mm copper tube
- G - 1 off - 42mm long - 22mm copper tube

The redundant flow connection(s) must be plugged.

Accuracy is important to avoid the pump and or pipework obstructing removal of the top panel of the combustion chamber, or fouling the top panel of the outer case.

OUTER CASE ([Fig 6](#))

Assemble the outer case in the following manner:

- 1) Locate the RH side panel over the pegs at the RH side of the base and press downwards to secure. When fitting the panels if access is restricted the cutouts at the top of the back edge of the panels. can be used to pass the case fixing brackets.
- 2) Secure the panel to the case fixing brackets with two of the six screws provided.
- 3) Repeat 1 & 2 with the LH side panel.
- 4) Secure the hinges of the facia panel to the two side panels using two of the six screws provided.
- 5) At this point the electrical connections to the facia panel can be made and the appliance can be commissioned. (See '[Electrical Connections](#)' and '[Commissioning the Appliance](#)').
- 6) Swing the facia panel upwards and secure to the side panels using the two screws retained to the control facia.
- 7) Lift trim clear of flue connection on the boiler and locate the top panel on the top of the side panels and press down to secure. Re-position the trim in the cutout on the top panel.
- 8) Hook the bottom edge of the front panel over the lugs on the base and swing the top edge back till the pegs at the top of the panel locate in the corresponding holes. Press to secure.

GAS CONNECTION ([Fig 3](#))

Adapt the gas supply 15mm (1/2 in BSP) within the outer case making the gas connection to the service tap provided.

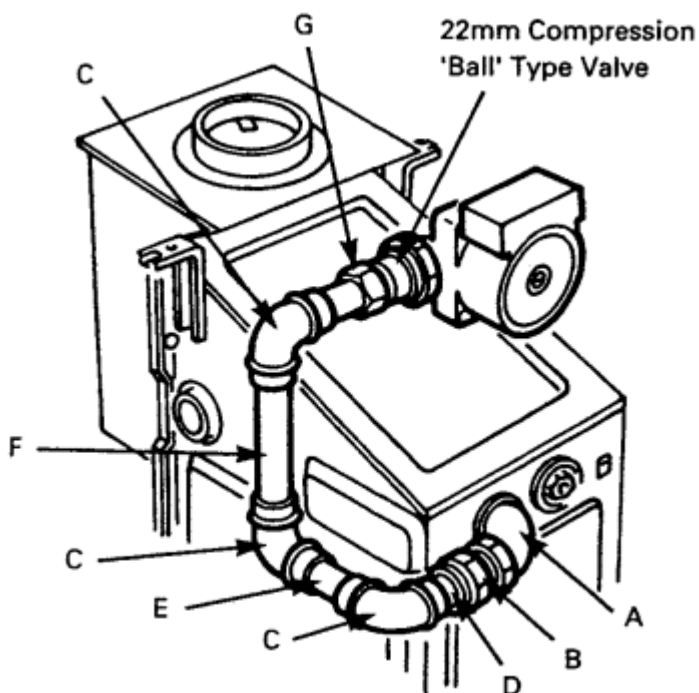


fig 1 - Pump in Casing

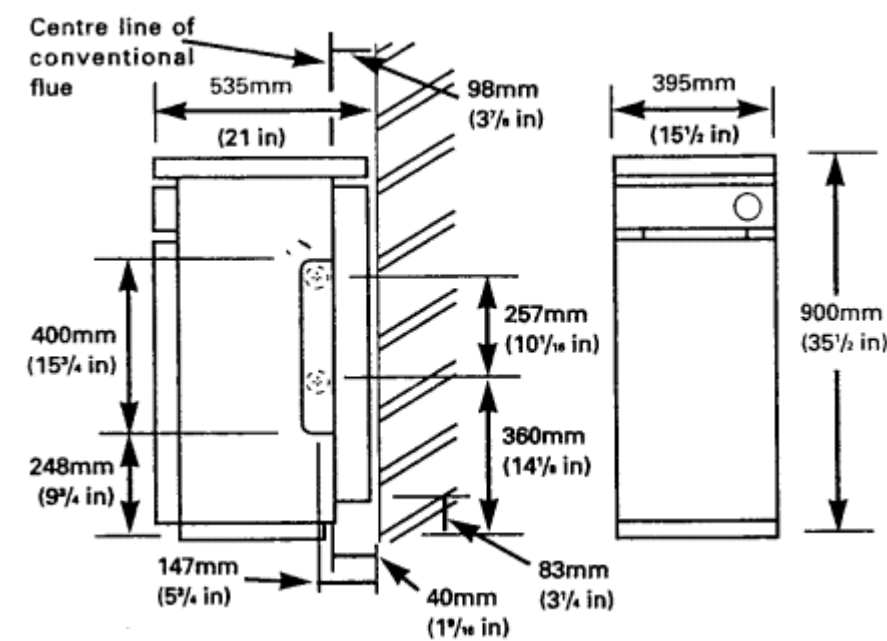


fig 2 - Outer Case

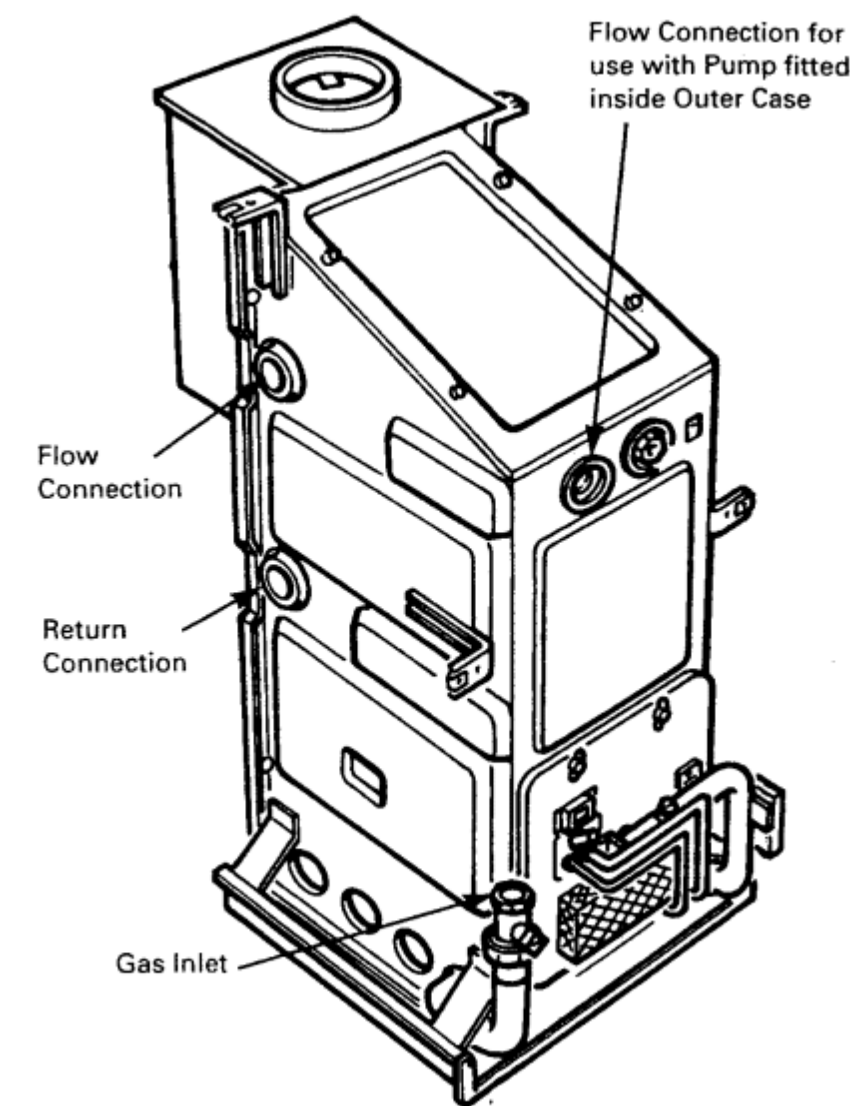


fig 3 - Boiler Connections

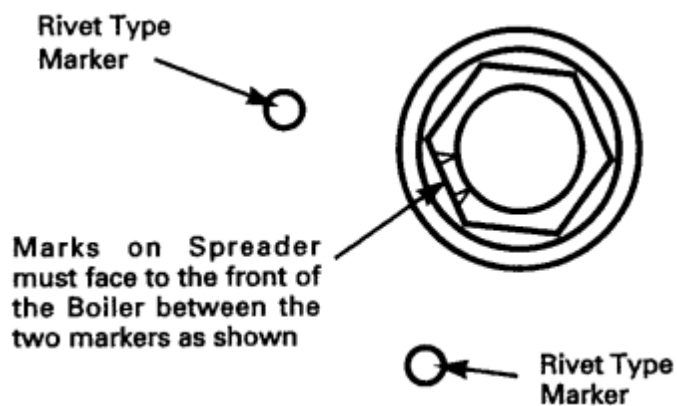


Fig 4 - Spreader in Pumped Return Connection

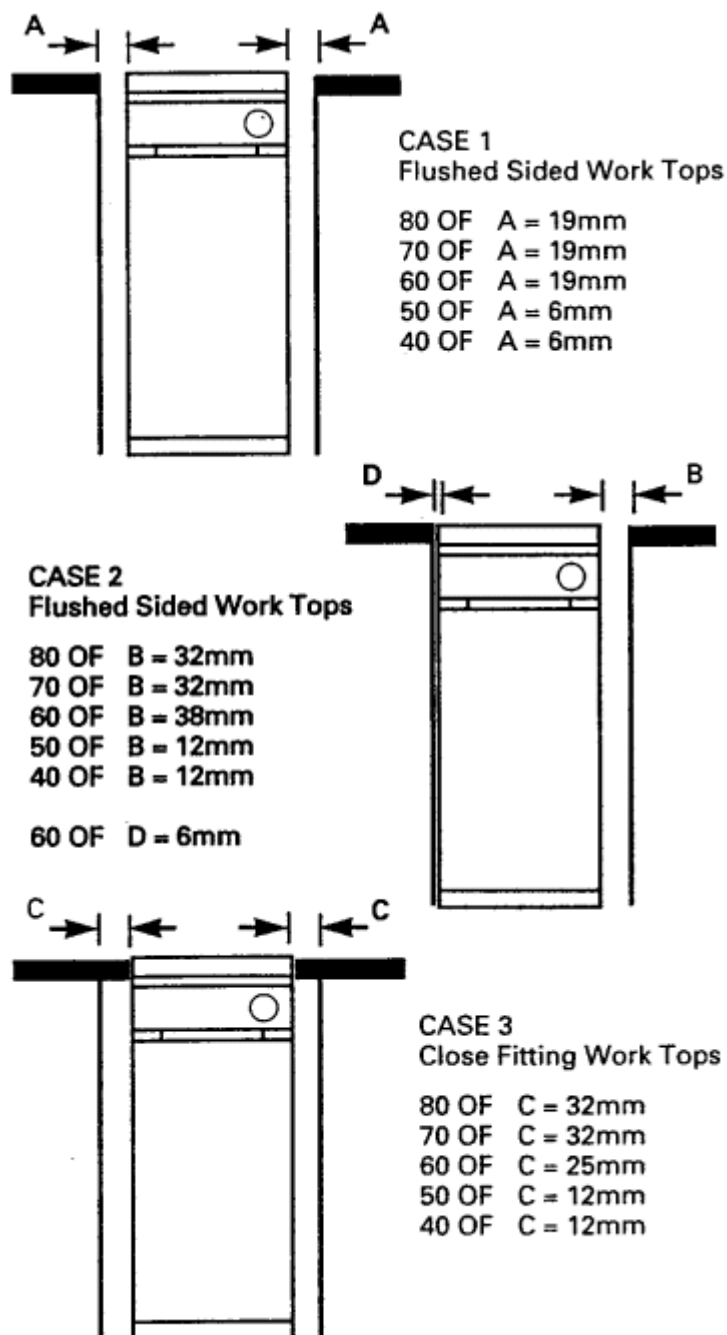


fig 5 - Clearances - Work Tops

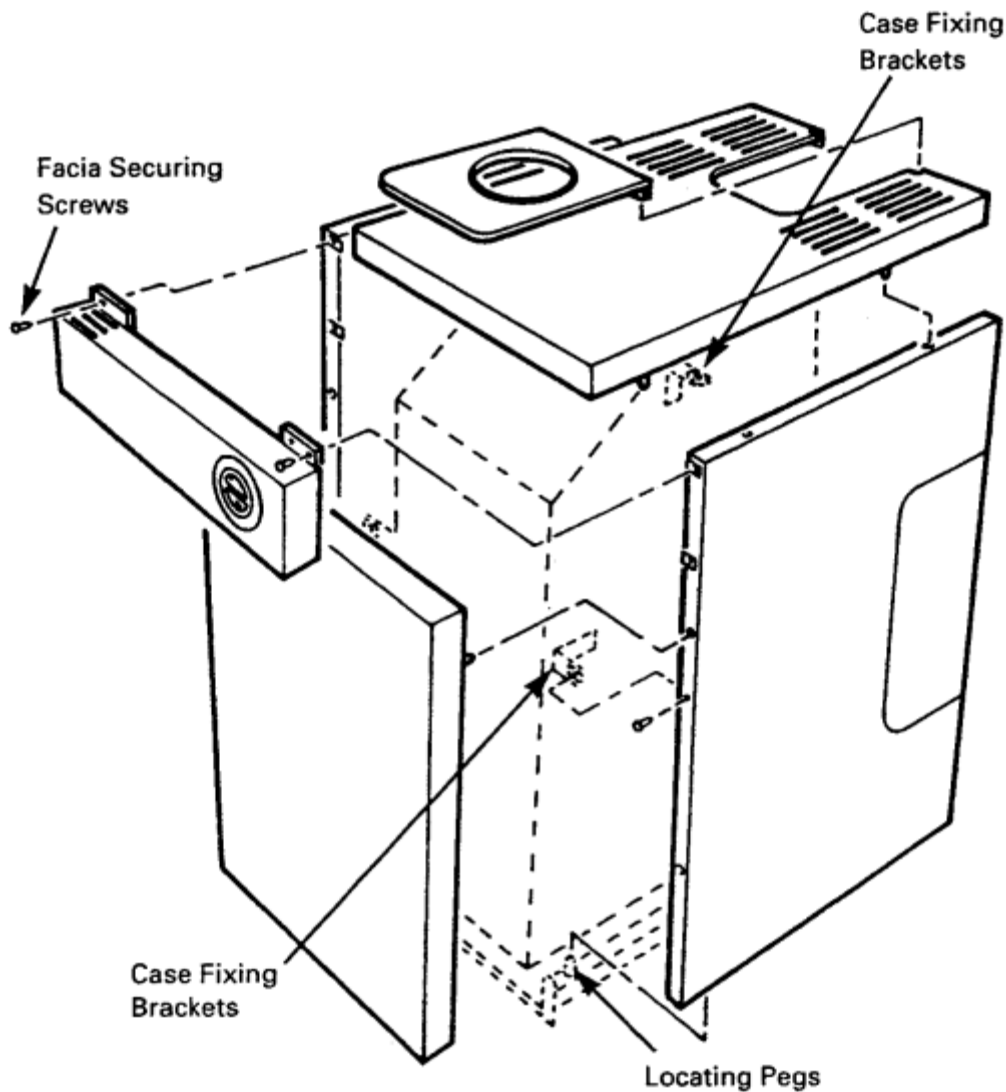


fig 6 - Outer Case Assembly

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Electrical Connections

THIS APPLIANCE MUST BE EARTHED

GENERAL

The mains supply required is 220/250v ~ 50 Hz fused at 3 amps. A double pole switch should be provided in the installation or an unswitched socket outlet should be used. All external wiring shall be correctly earthed and polarised and be in accordance with I.E.E. Regulations.

Electrical supply to controls

The recommended cable for connection to the appliance is 0.5 sq. mm 16/0.20 PVC heat resistant grade to BS 6500 1990.

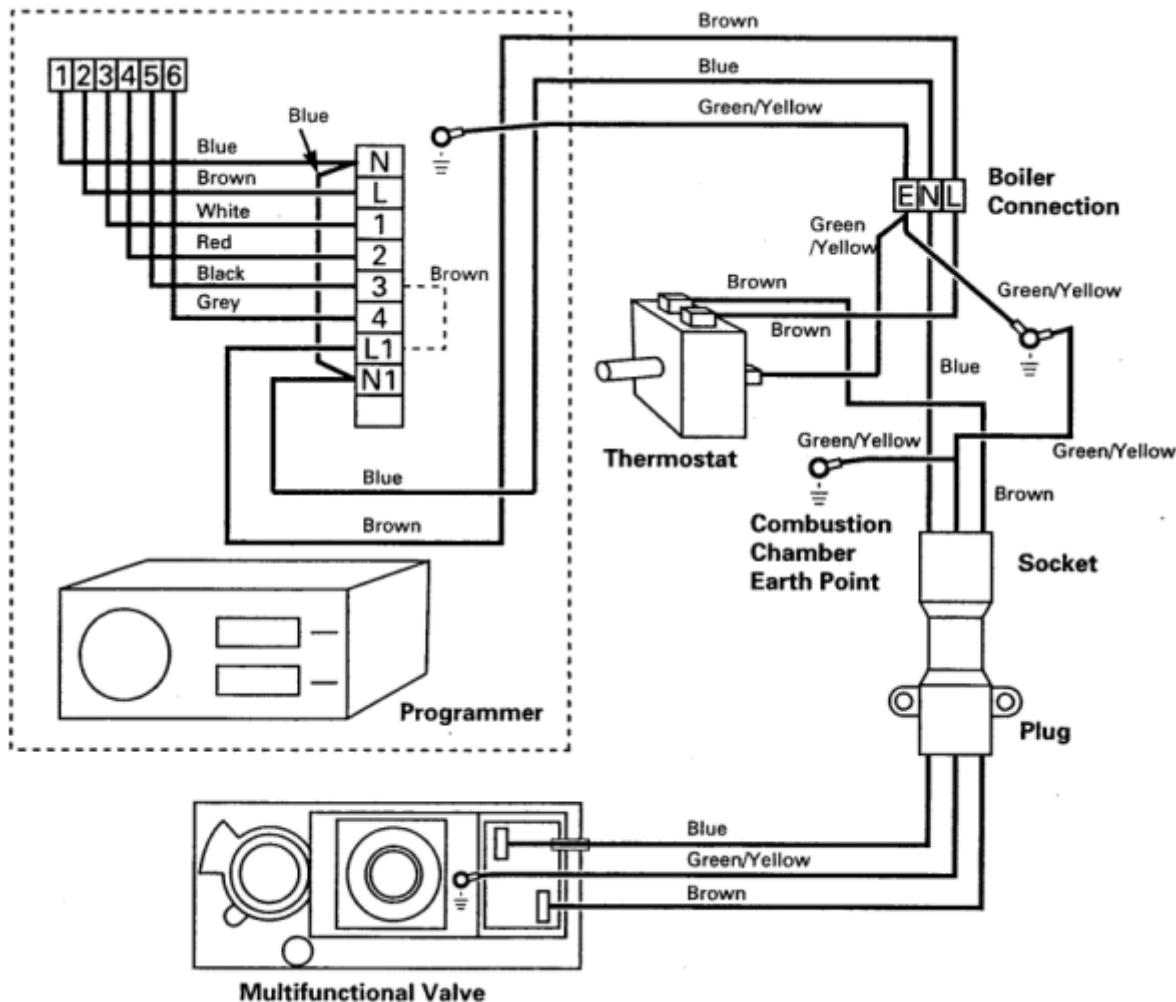
The input cable should be secured with the cable clips provided and be laid to avoid contact with hot surfaces.

The length of the supply conductors between the cable grip and the terminals must be such that the current carrying conductors become taut before the earthing conductor if the cable should slip out of the cable grip.

- 1) With the outer case assembled as in 'Outer Case' 1-4 remove the 2 screws securing the thermostat cover to the fascia panel.
- 2) Fit the input cable to the terminal strip and clamp using the cable grip provided and clamp the incoming cable into the cable clips provided on the outer case side panel so as to avoid contact with the hot combustion box surfaces.
- 3) Connect the 2 green and yellow earth wires halfway down the appliance wiring harness to the combustion chamber earth point on the outer case support bracket.
- 4) Fit the socket at the end of the wiring harness to the plug attached to the burner feed pipe and clip the wire to the cable clips provided.
- 5) Refit the thermostat cover to the fascia panel.
- 6) Push the thermostat phial into the thermostat pocket and clip the capillary behind the retaining clip ([Fig 8](#)).

INTERNAL WIRING

Programmer Wiring Plate



- a) The sizes of flow and return pipes from the boiler should be determined by normal methods according to the requirements of the system. Normally the pump should be set to give a 11°C (52 °F) drop across the system with the gas rate of the boiler adjusted to the output required.
- b) The open vent pipe must be a minimum of 22mm and must rise continuously to above the feed tank. The flow pipe from the boiler may form part of the open vent. No part of the open vent should contain a valve.
- c) In a fully pumped system the cold feed pipe (15mm) may be connected to the flow pipe, 6 ins away from the vent pipe, but there must always be a cold water path to the boilers return connection.

DOMESTIC HOT WATER

An indirect cylinder must be used. If a self priming indirect type is employed it must be of adequate size and applied strictly in accordance with the cylinder manufacturer's instructions.

FUEL ECONOMY

Better fuel economy is achieved by exercising control of the boiler by means of a room thermostat and or a cylinder thermostat as appropriate. Examples of different control systems are given below along with the appropriate wiring diagrams.

ALLOWING THE BOILER TO CYCLE ON THE BOILER THERMOSTAT DOES NOT PRODUCE THE BEST RESULTS. SIMILARLY FOR ECONOMY AND BOILER PERFORMANCE THE SYSTEM SHOULD BE DESIGNED SO THAT GRAVITY CIRCULATION IN THE HEATING CIRCUIT DOES NOT TAKE PLACE WHEN THE PUMP IS NOT RUNNING.

Control Systems

FULLY PUMPED SYSTEMS

One Zone Valve ([Fig. A](#))

Zone valve with auxiliary switch fitted at point V. A cylinder thermostat and a room thermostat are used to control both the pump and the boiler. The room thermostat also controls the zone valve to stop water circulation in the heating system.

Two Zone Valves ([Fig. C](#))

Zone valves are fitted at points V and U to stop water circulation to the heating system and the cylinder. The valves are controlled by a room thermostat and a cylinder thermostat respectively, each of which also controls the boiler and the pump.

Diverter Valve ([Fig. D](#))

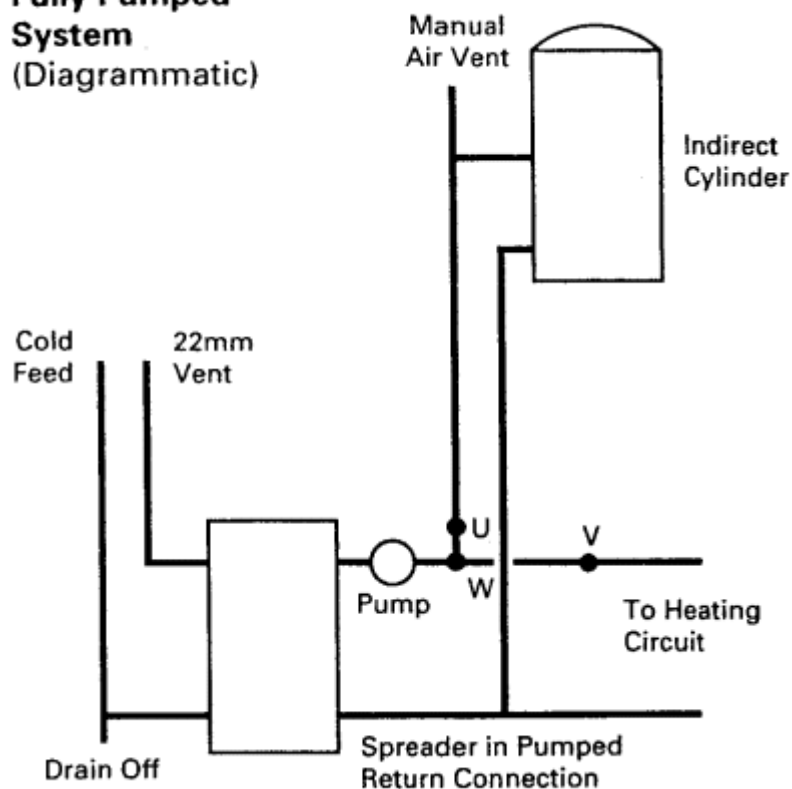
A diverter valve is inserted at point W to direct water circulation to either the cylinder or the heating system. The valve along with the pump and the boiler is controlled by a cylinder thermostat and a room thermostat.

GRAVITY D.H.W. SYSTEMS

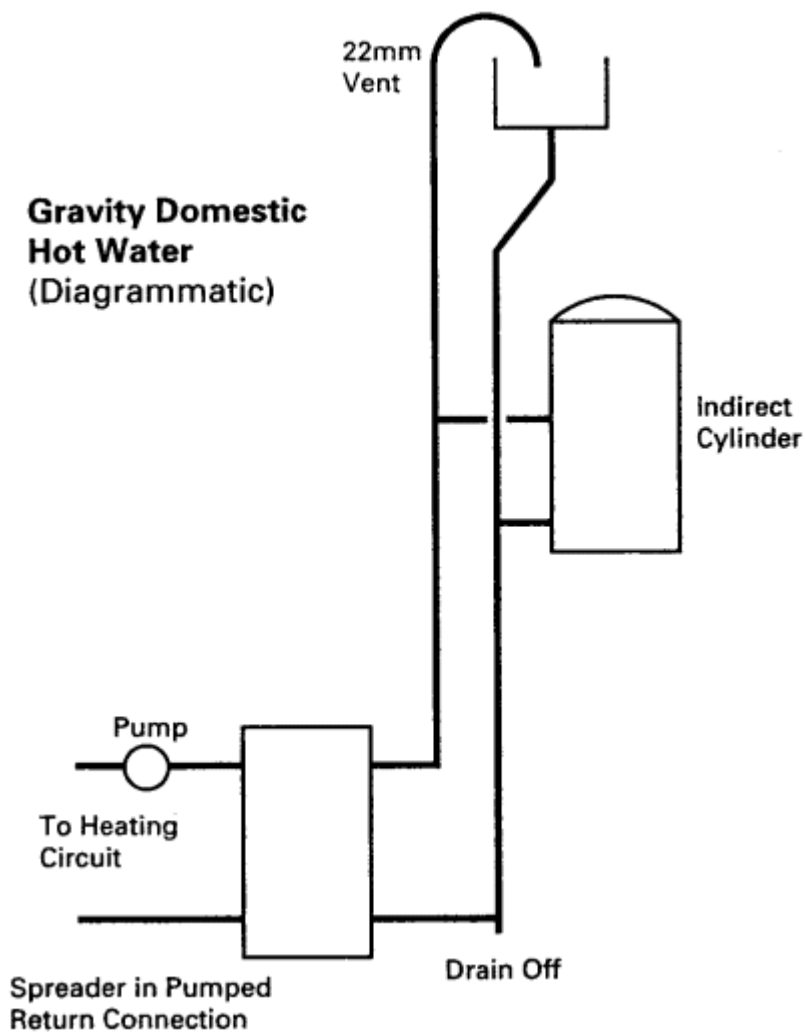
Sundial Control ([Fig. B](#))

Both the boiler and the pump are controlled by a cylinder thermostat and a room thermostat. The room thermostat overrides the cylinder thermostat when heating is called for.

Fully Pumped System (Diagrammatic)



Gravity Domestic Hot Water (Diagrammatic)



In both cases the cold feed pipe which is the neutral point of the system is shown directly behind the pump to avoid sub atmospheric pressure (air entrainment) in the system.

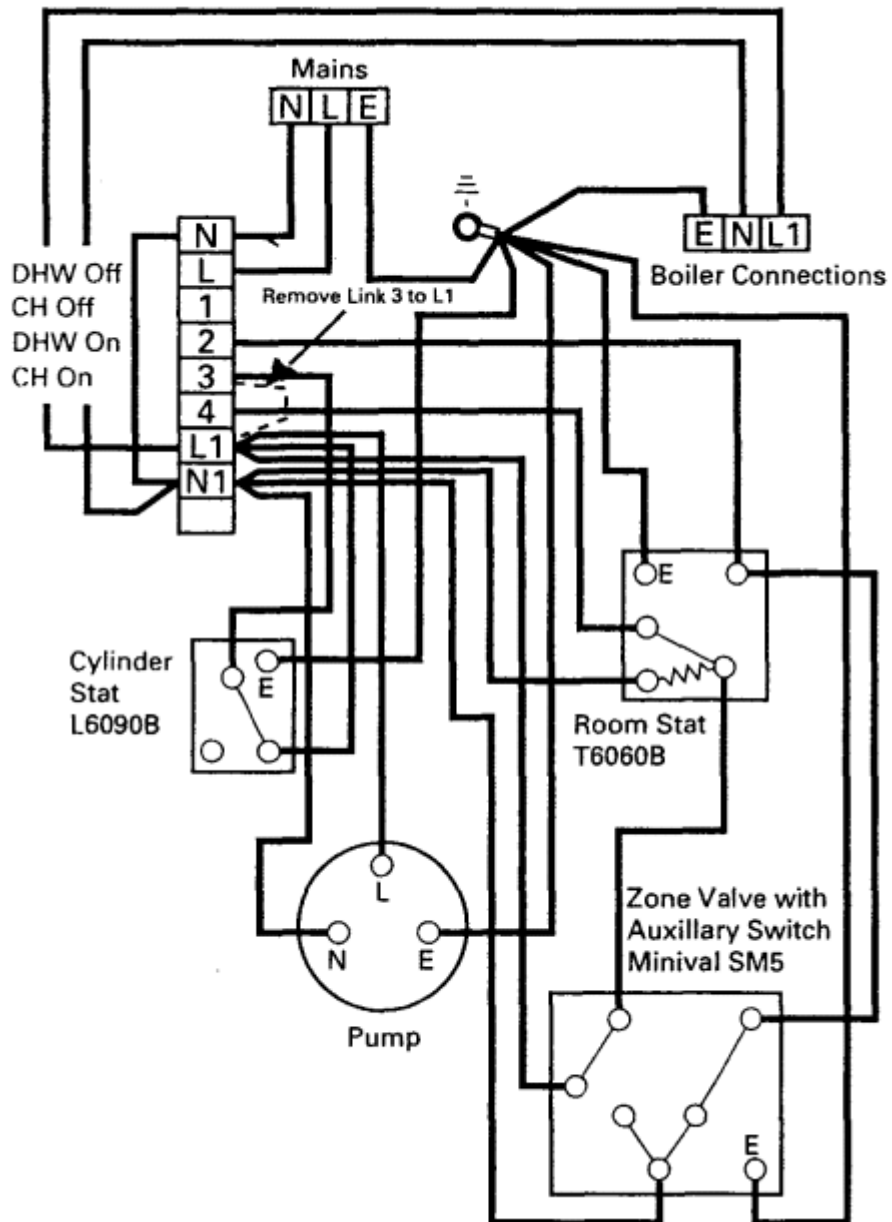


Fig A - One Zone Valve - Fully Pumped System

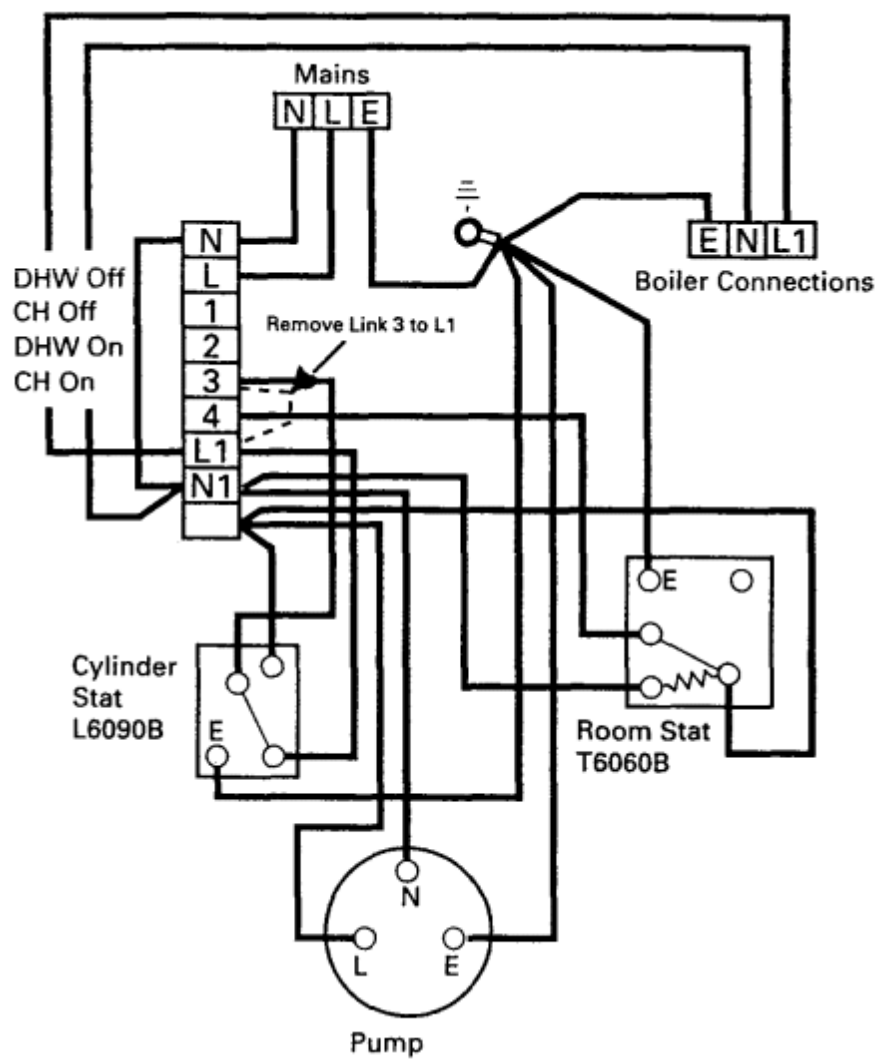


Fig B - Sundial Gravity System

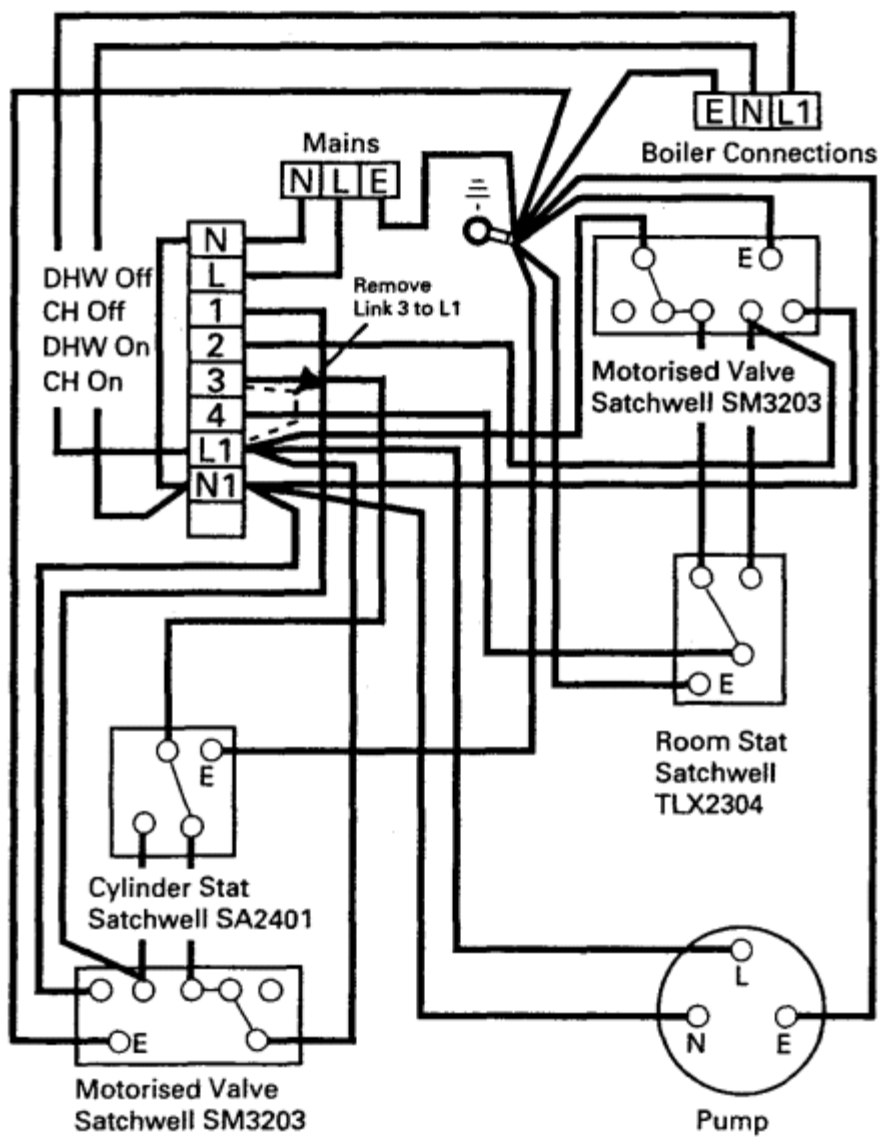


Fig C - 2 Zones Valve - Fully Pumped System

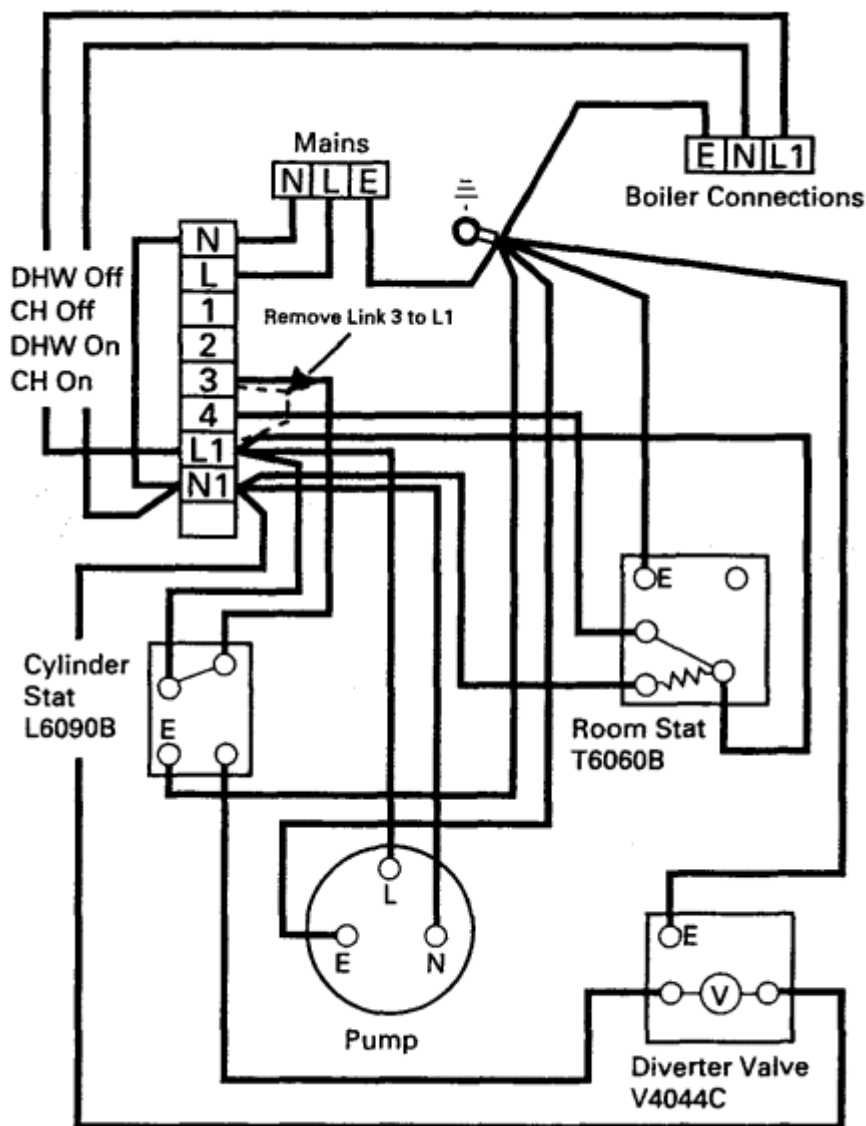


Fig D - Diverter Valve - Fully Pumped System

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Commissioning the Unit

Flush the whole system with all valves open.

Fill the system, vent the radiators and check for water leaks.

Turn the gas service tap to the ON position, check for gas soundness (BS 6891: 1988). Purge the air from the gas supply pipe at the gas service tap.

Turn the boiler thermostat to the OFF position.

Turn on the mains electrical supply and ensure that all external controls e.g. room thermostat, timer, etc., are calling for heat.

Remove the burner pressure test point screw and connect a pressure gauge.

Hold in the grey ON/OFF button on the gas control valve ([Fig 7](#)). Press the piezo unit button ([Fig 7](#)) and release. Repeat until pilot lights. Hold in the grey ON/OFF button for a further 20 seconds and then release. The pilot light should then stay alight. (IF THE PILOT FAILS TO REMAIN ALIGHT TURN THE GREY ON/OFF BUTTON CLOCKWISE, WAIT 3 MINUTES AND START AGAIN)

FROM THE BEGINNING OF THE PARAGRAPH.) The flame should be without a yellow tip and be approximately 25mm (1 in) long. No adjustment of the pilot flame is necessary as with the restrictor screw fully open the pilot jet is sized to give the correct flame length at 20 mbar (8 in wg) inlet pressure.

Operate the burner by turning the thermostat knob to the high setting. CHECK THE OPERATION OF THE FLAME FAILURE DEVICE by turning the grey ON/OFF button clockwise. The burner and the pilot should go out.

Turn the boiler thermostat to the OFF position. Wait 3 minutes and re-light the pilot.

Operate the burner by turning the thermostat knob to the high setting.

Remove the cover screw and adjust the appliance governor to give the correct pressure corresponding to the required input. See table opposite. Check this pressure after 10 minutes and adjust if necessary ([Fig 7](#)). Replace cover screw.

Turn the boiler thermostat to the OFF position and re-check the pilot flame length.

The system should now be flushed again whilst hot, refilled, vented and checked for water leaks.

Make a final check for gas soundness.

Replace the burner pressure test point screw and then turn the boiler thermostat to the required setting.

Complete the assembly of the outer case as described in 'Outer Case' ([Fig 6](#)).

Instruct the user in the use of the unit. Please leave these instructions with the user, along with the user's instructions and safety card.

NOTE: In the event of an electrical fault after the installation of the appliance, preliminary electrical system checks must be carried out (i.e. Earth continuity, polarity and resistance to earth).

Model	Maximum Input	Setting Pressure	Minimum Input	Setting Pressure
80 OF	30.36 kW	15.8mbar	27.11 kW	12.7mbar
	(103600 Btu/h)	(6.35 in wg)	(92500 Btu/h)	(5.1 in wg)
70 OF	26.4 kW	16.4mbar	23.15 kW	12.2mbar
	(90100 Btu/h)	(6.6 in wg)	(79000 Btu/h)	(4.9 in wg)
60 OF	22.91 kW	16.8mbar	19.5727 kW	12.3mbar
	(78200 Btu/h)	(6.7 in wg)	(66800 Btu/h)	(4.9 in wg)
50 OF	19.25 kW	17.1mbar	15.91 kW	11.7mbar
	(65700 Btu/h)	(6.85 in wg)	(54300 Btu/h)	(4.7 in wg)
40 OF	15.26 kW	16.9mbar	12.07 kW	10.5mbar
	(52100 Btu/h)	(6.8 in wg)	(41200 Btu/h)	(4.2 in wg)

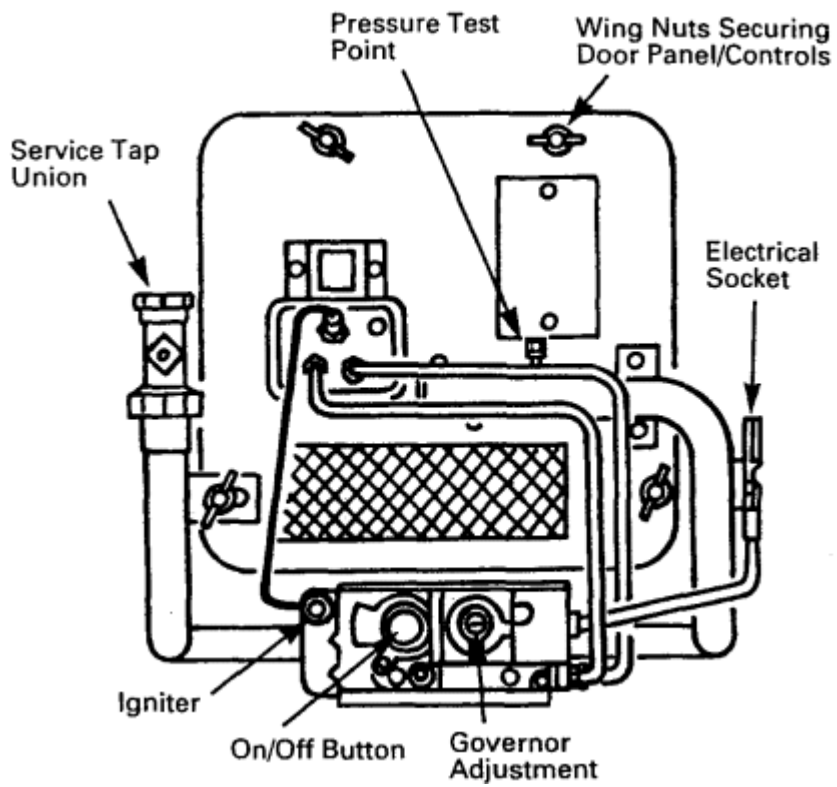


fig 7 - Burner Controls

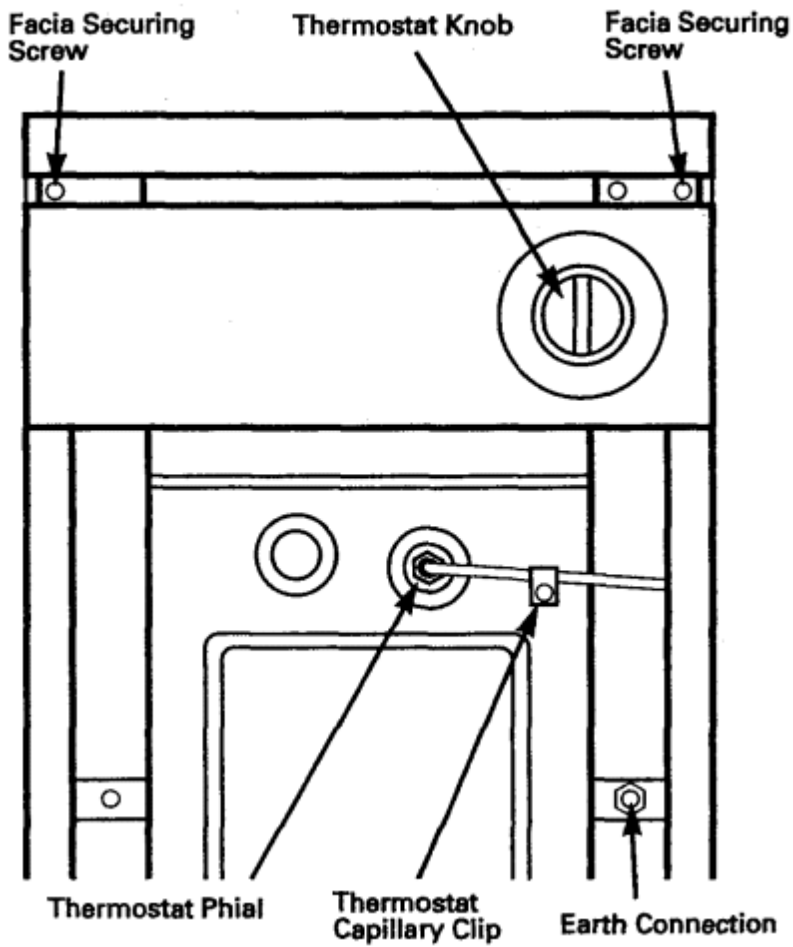


fig 8 - Boiler Thermostat

Servicing the Unit

(See 'BOILER SERVICING GUIDE' label on the boiler)

For economy and safety reasons, it is important to service the appliance regularly.

- 1) Turn off the electrical supply to the boiler.
- 2) Remove the front panel of the outer case by pulling forwards at the top and lifting upwards.
- 3) Lift trim on flue pipe connection clear of the top panel and remove the top panel of the outer case by pulling upwards.
- 4) Turn off the gas supply at the service tap and disconnect the union ([Fig 7](#)).
- 5) Disconnect the electrical socket by pulling upwards ([Fig 7](#)).
- 6) Remove the four wing nuts and carefully withdraw the burner and controls assembly ([Fig 7](#)).
- 7) Release the two screws securing the front insulation assembly and remove the assembly ([Fig 9](#)).
- 8) Remove the four thumb screws securing the top inspection panel ([Fig 10](#)).
- 9) Clean the fins of the heat exchanger with a stiff bristle brush. Clean out any deposits that have collected in the bottom of the combustion box ensuring that the two air openings in the base are clear.
- 10) Remove any debris that may have collected under the combustion box.
- 11) Check all the insulation panels for damage, replace if necessary. Refit the front insulation panel, the top inspection panel.
- 12) 80, 70 OF ONLY - Clean the burner as follows:
 - a) Pull and release the lint arrester from the front of the combustion box panel held in position by two spring clips. This can be cleaned by thoroughly washing and then allowed to dry.
 - b) Remove the two nuts securing the burner tie plate to the burners ([Fig 12](#)).
 - c) Remove the burners by removing the securing screws (2 per burner) ([Fig 12](#)).
 - d) Remove the split pin on each burner manifold and twist each burner in the direction shown ([Fig 14](#)) to release the bayonet fitting and withdraw the venturi unit. Clear away any lint or deposits which may have accumulated inside the burners. Refit the venturi sections ensuring that the gaskets are not damaged. Refit the split pins.
 - e) Remove the injectors from the inlet manifold, clean carefully and replace.
- 13) 60, 50, 40 OF ONLY - Clean the burner as follows:
 - a) Pull and release the lint arrester from the front of the combustion box panel held in position by two spring clips. This can be cleaned by thoroughly washing and then allowed to dry.
 - b) Disconnect the burner by removing the 3 securing screws ([Fig 11](#)).
 - c) Remove the end flange assembly of the burner which is secured in position by a single screw together with 1 washer. Clear away any deposits which may have accumulated on the gauze or inside the burner. Refit the end flange taking care that the gasket is not damaged and that the washer is replaced ([Fig 13](#)).

d) Remove the injector from the inlet manifold, clean carefully and replace.

14) Clean the pilot as follows: Unscrew the pilot tubing nuts at both ends and remove the pilot tube. Remove and clean the pilot injector and clean the pilot shroud ([Fig 11](#)).

15) Re-assemble the pilot components and then the burners in reverse order of dismantling.

16) Refit the burner and controls assembly checking that the door seal is undamaged. Replace if necessary.

17) Reconnect the gas union at the service tap. Turn on the tap and check for gas soundness.

18) Refit the electrical socket and turn the thermostat to the OFF position.

19) Refit the outer case top panel.

20) Hold in the grey ON/OFF button on the gas control valve ([Fig 7](#)). Press in the igniter button and release. Repeat until the pilot lights. Hold in the grey ON/OFF button for a further 20 seconds and then release. The pilot should then stay alight. (IF THE PILOT FAILS TO REMAIN ALIGHT, TURN THE GREY ON/OFF BUTTON FULLY CLOCKWISE AND RELEASE, WAIT 3 MINUTES AND START AGAIN FROM THE BEGINNING OF THE PARAGRAPH.) The flame should be without a yellow tip and be approximately 25mm (1 in) long. No adjustment of the pilot flame is necessary as with the restrictor screw fully open the pilot jet is sized to give the correct flame length at 20 mbar (8 in wg) inlet pressure.

21) Turn on the electricity supply to the boiler.

22) Remove the pressure test point screw ([Fig 7](#)). Connect a pressure gauge and operate the burner by turning the thermostat knob to its highest setting.

23) Check that the pressure corresponding to the range rated output is correct for the installation (see data label). If necessary remove the cover screw and adjust the appliance governor ([Fig 7](#)).

24) Turn the boiler thermostat to the OFF position and refit the pressure test point screw.

25) Turn the boiler thermostat to its original setting.

26) Replace the outer case front panel.

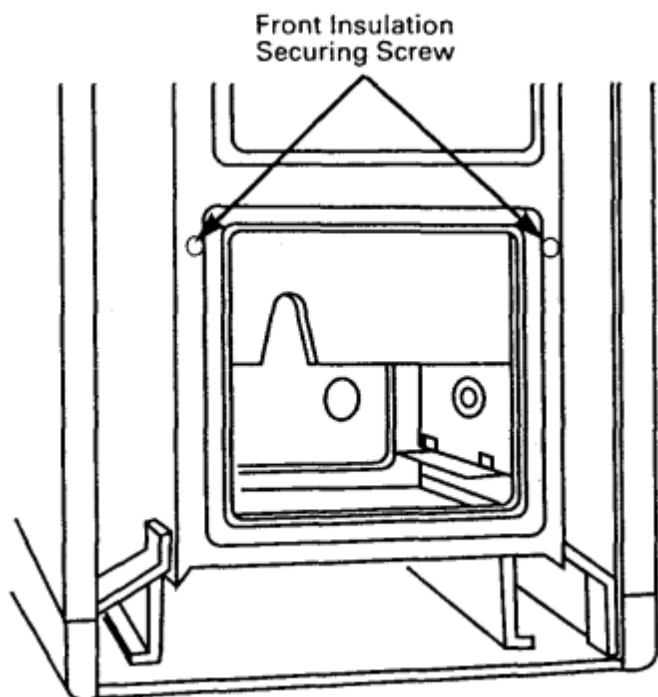


Fig 9 - Insulation Combustion Box Door

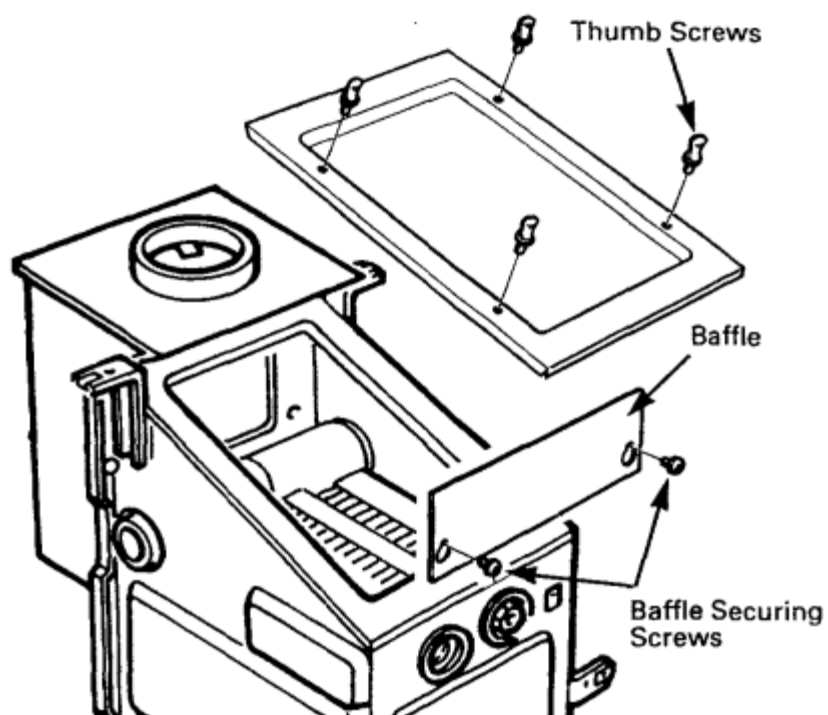


Fig 10 - Baffle Securing Screws

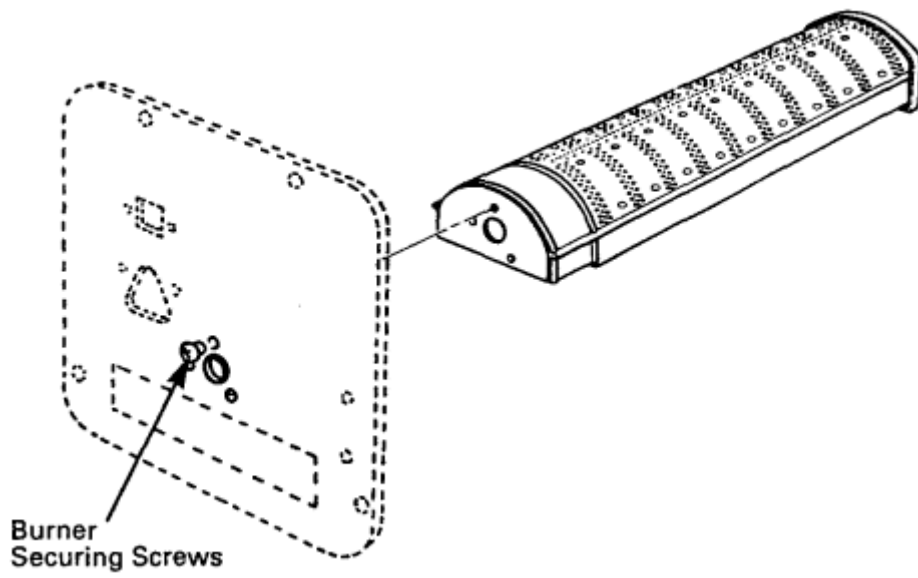


fig 11 - Door/Burner (60/50/40)

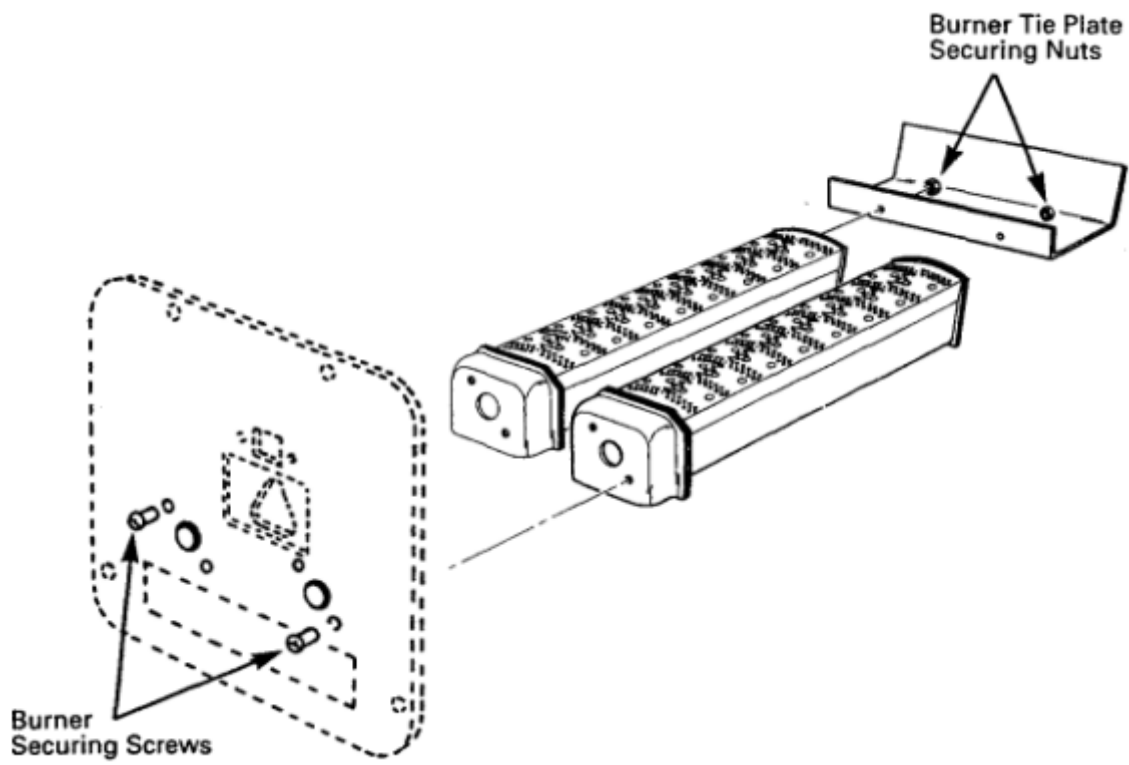


fig 12 - Door/Burner (80/70)

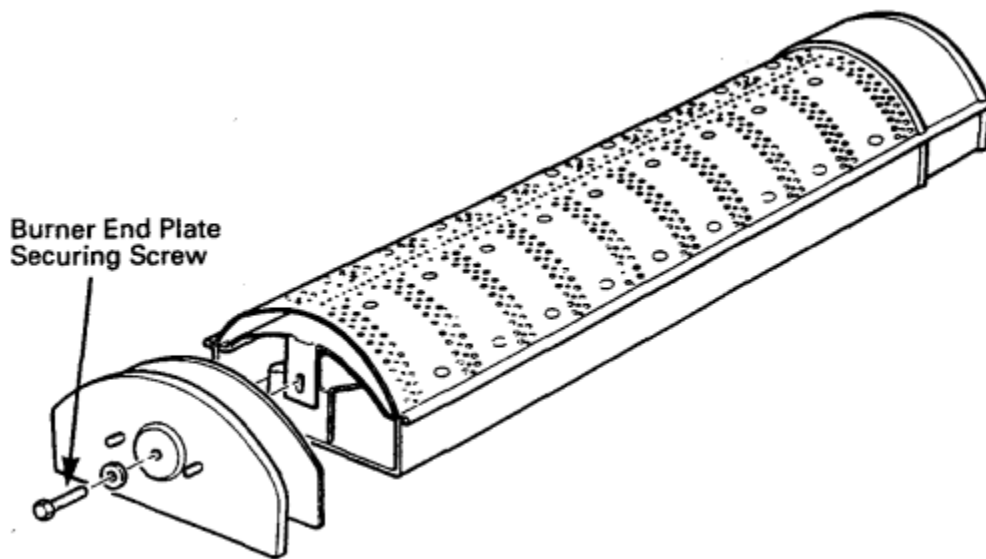


fig 13 - Burner (60/50/40)

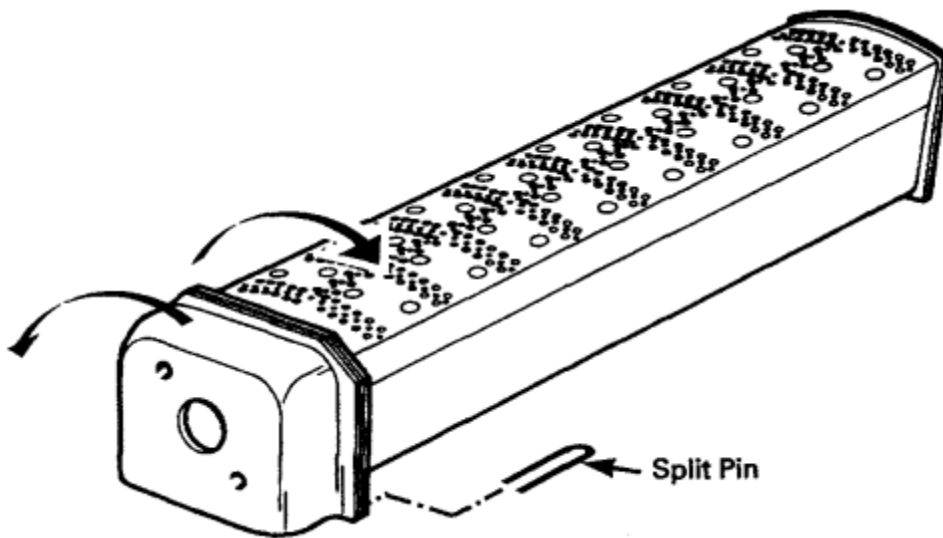


fig 14 - Burner (80/70)

Changing Components

When changing components ensure that electrical and gas supplies are isolated.

THERMOCOUPLE

- 1) Remove the outer case front panel by pulling forwards at the top and lifting upwards.
- 2) Turn off the gas supply at the service tap or at the grey ON/OFF button on the gas valve.
- 3) Release the thermocouple nut at the side of the gas valve ([Fig 15](#)).
- 4) Release the thermocouple nut at the pilot bracket.
- 5) Re-assemble in reverse order of dismantling.

THERMOCOUPLE RE-ROUTE DEVICE

- 1) Remove the burner and controls assembly as described in steps [1 to 6 - Servicing the Unit](#).
- 2) Remove valve heat shield.
- 3) Release thermocouple nut at the valve.
- 4) Disconnect the re-route nut.
- 5) Remove terminal cover and re-route device.

INJECTORS (80,70 OF ONLY)

- 1) Remove the burner and controls assembly as described in steps [1 to 6 - Servicing the Unit](#).
- 2) Remove the lint arrester.
- 3) Remove the screws securing the burners to the door panel (2 screws on each burner) and remove the burners ([Fig 12](#)).
- 4) Unscrew the injectors from the inlet manifold.
- 5) Re-assemble in reverse order of dismantling.

INJECTOR (60, 50, 40 OF ONLY)

- 1) Remove the burner and controls assembly as described in steps [1 to 6 - Servicing the Unit](#).
- 2) Remove the lint arrester.
- 3) Remove the 3 screws securing the burner to the door panel and remove the burner ([Fig 11](#)).
- 4) Unscrew the injector from the inlet manifold.
- 5) Re-assemble in reverse order of dismantling.

BURNERS (80,70 OF ONLY)

- 1) Remove the burner and controls assembly as described in steps [1 to 6 - Servicing the Unit](#).
- 2) Remove the lint arrester
- 3) Remove the two nuts securing the burner tie plate to the burners ([Fig 12](#)).
- 4) Remove the screws securing the burners to the door panel (2 screws on each burner) and remove the burners ([Fig 12](#)).
- 5) Re-assemble in reverse order of dismantling.

BURNER (60, 50, 40 OF ONLY)

- 1) Remove the burner and controls assembly as described in steps [1 to 6 - Servicing the Unit](#).
- 2) Remove the lint arrester.
- 3) Remove the 3 screws securing the burner to the door panel and remove the burner ([Fig 11](#)).
- 4) Re-assemble in reverse order of dismantling.

BOILER THERMOSTAT

- 1) Remove the outer case front panel by pulling forwards at the top and lifting upwards.

- 2) Remove the outer case top panel by pulling upwards.
- 3) Remove the two fascia retaining screws ([Fig 8](#)) taking care not to lose the two spacer washers and allow the fascia to swing forwards on its hinges.
- 4) Release the thermostat capillary from behind its retaining clip and remove the thermostat phial from the boiler ([Fig 8](#)).
- 5) Remove the screw securing the thermostat cover to the fascia.
- 6) Disconnect the three spade electrical terminals from the thermostat.
- 7) Pull off the thermostat knob and remove the locknut securing the thermostat to the fascia panel.
- 8) Re-assemble in reverse order of dismantling ensuring that the thermostat phial is replaced into the thermostat pocket.

HONEYWELL GAS VALVE (Fig 15)

- 1) Remove the burner and controls assembly as described in steps [1 to 6 - Servicing the Unit](#).
- 2) Disconnect the thermocouple nuts at the valve and at the pilot bracket.
- 3) Disconnect the pilot feed pipe at the valve and at the pilot bracket ensuring that the pilot injector is not misplaced.
- 4) Disconnect the electrode lead and remove the piezo unit.
- 5) Remove the screw securing the electrical terminal cover to the gas valve. Disconnect the electrical connections.
- 6) Remove the valve complete with the heat shield and inlet pipe by disconnecting the flanged injector manifold.
- 7) Disconnect the flanged inlet pipe. Retain the O rings for re-assembly but replace if damaged.
- 8) Remove the heat shield by undoing the retaining screw.
- 9) Release the thermocouple re-route nut and remove the re-route.
- 10) Individual sub components of the valve may be replaced as outlined by Honeywell instructions.
- 11) Re-assemble in reverse order of dismantling.

INSULATION IN COMBUSTION BOX

- 1) Remove the burner and controls assembly as described in steps [1 to 6 - Servicing the Unit](#).
- 2) Release the 2 screws securing the front insulation assembly and remove the assembly ([Fig 9](#)).
- 3) Remove the two screws and washers securing the two side insulation panels ([Fig 16](#)) and carefully remove diagonally through the door opening.
- 4) Remove the two screws and washers securing the back panel insulation ([Fig 16](#)).
- 5) Remove the ceramic insulation pad from the front insulation assembly by bending the securing tabs.
- 6) 60,50,40 OF ONLY - Remove the two sloping panels of insulation adjacent to the heat exchanger by removing 4 screws and washers. Ease out the bottom edge of the insulation panel

and slide down ([Fig 16](#)).

- 7) Replace insulation as necessary and bend down securing tabs where applicable.
- 8) Re-assemble in reverse order of dismantling taking care not to damage the new insulation.

PIEZO UNIT ([Fig 15](#))

- 1) Remove the burner and controls assembly as described in steps [1 to 6 - Servicing the Unit](#).
- 2) Disconnect the electrode lead at the piezo unit.
- 3) Remove the nut securing the piezo unit to the heat shield and remove the piezo unit.
- 4) Re-assemble in reverse order of dismantling.

SPARK ELECTRODE ([Fig 15](#))

- 1) Remove the burner and controls assembly as described in steps [1 to 6 - Servicing the Unit](#).
- 2) Disconnect the electrode lead at the electrode.
- 3) Remove the nut securing the electrode and remove the electrode.
- 4) Re-assemble in reverse order of dismantling.

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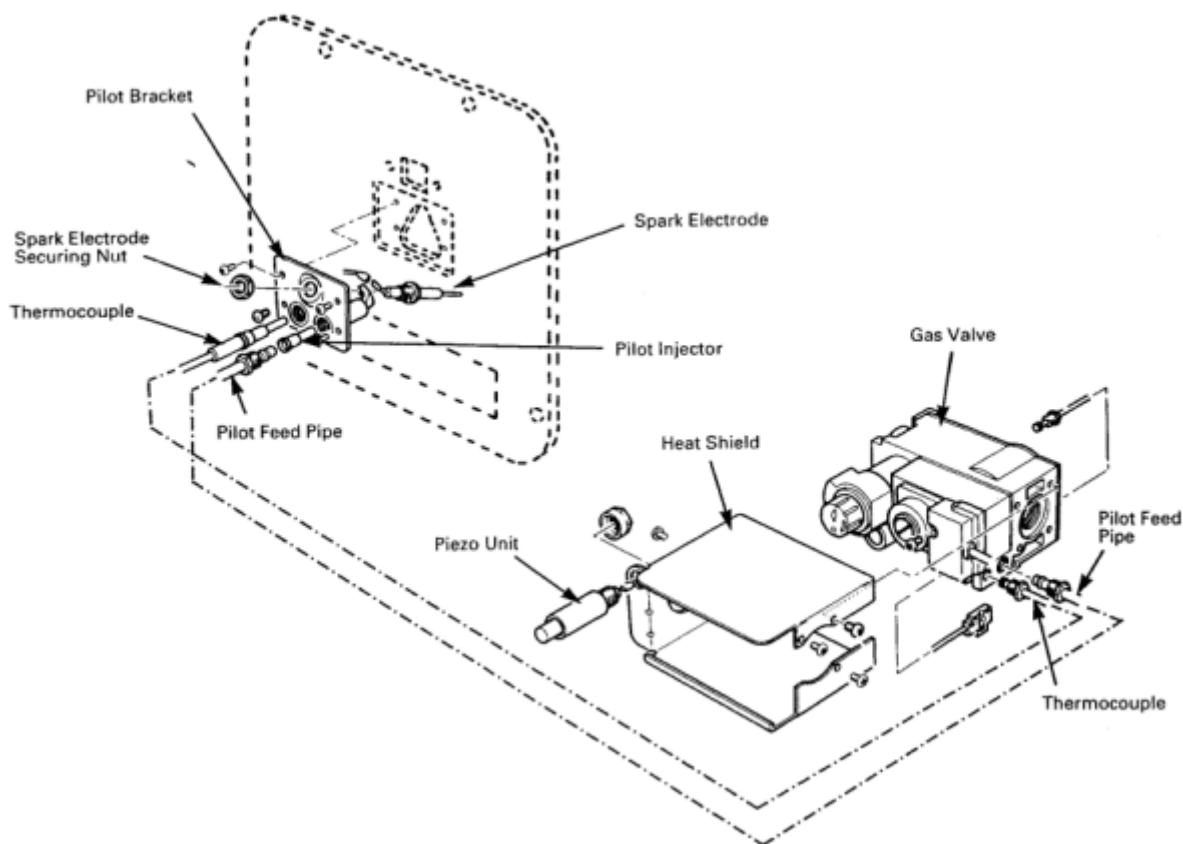


fig 15 - Control Assembly

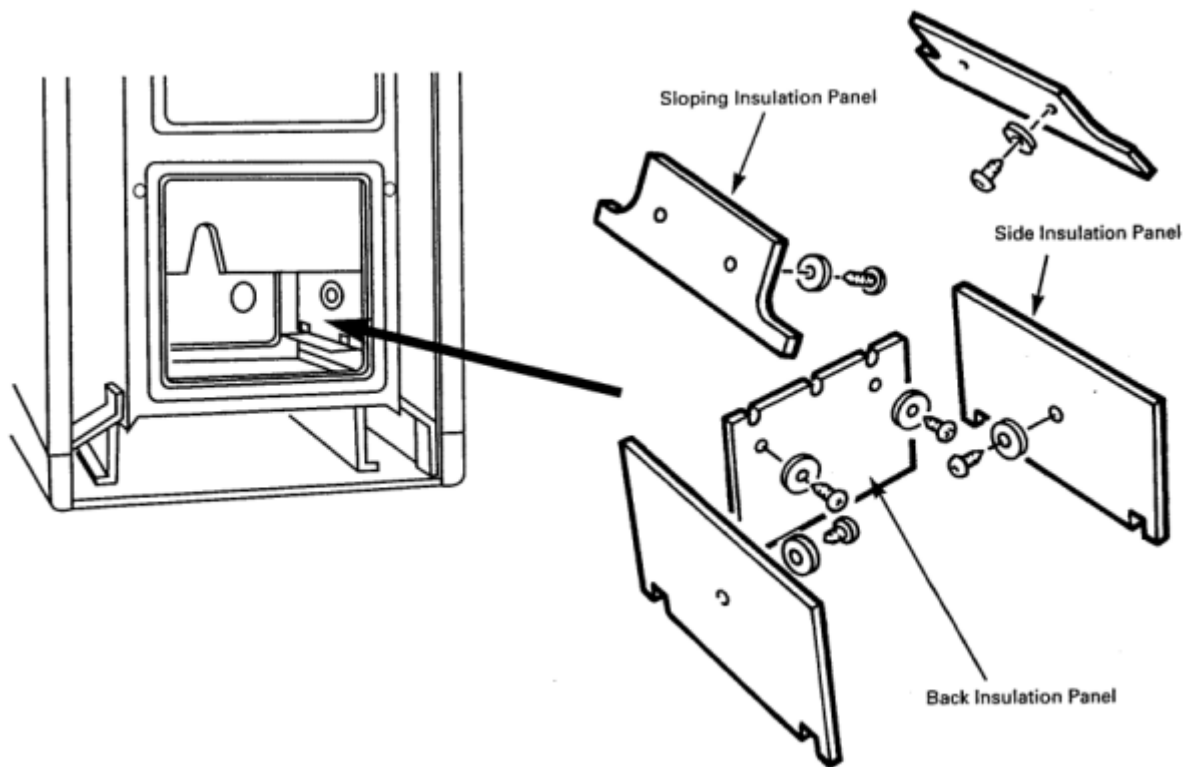
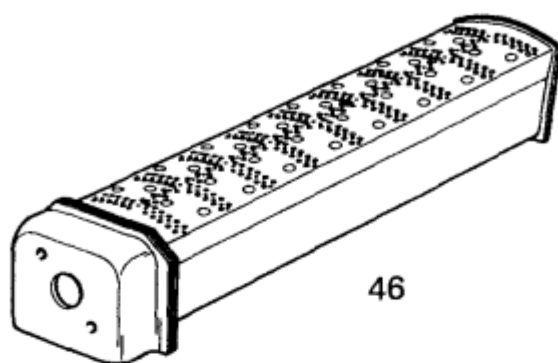
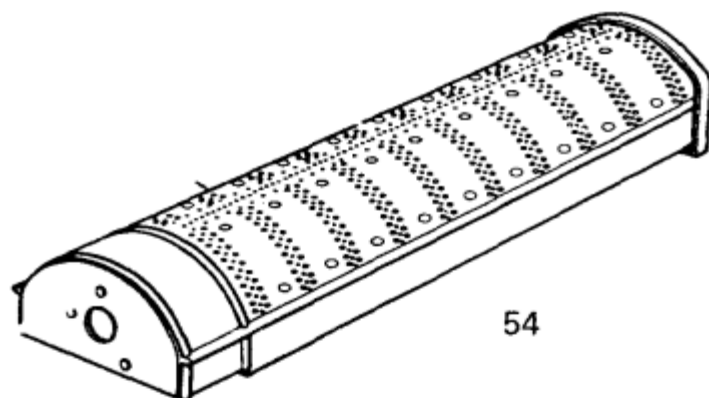
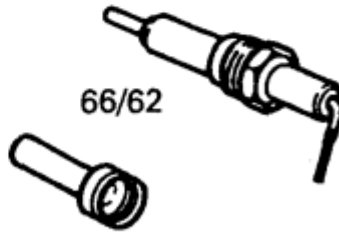
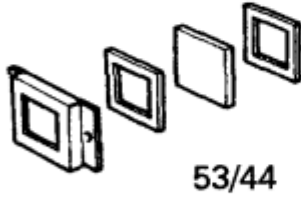
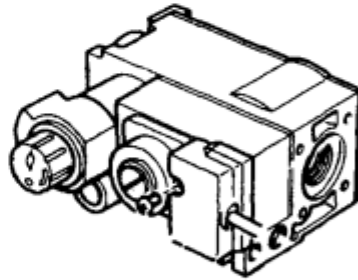
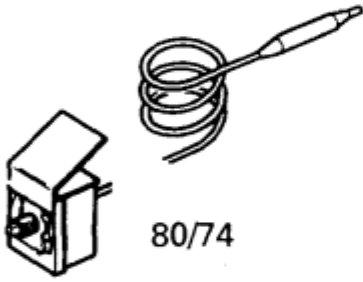


fig 16 - Insulation

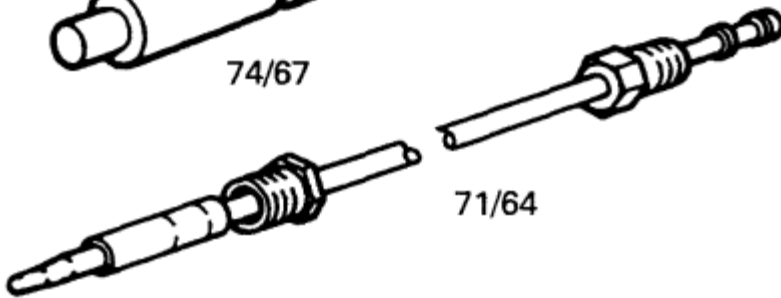
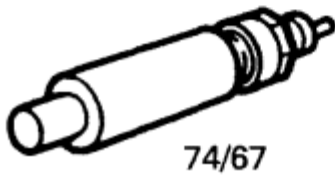
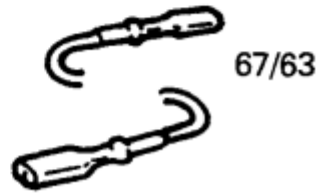
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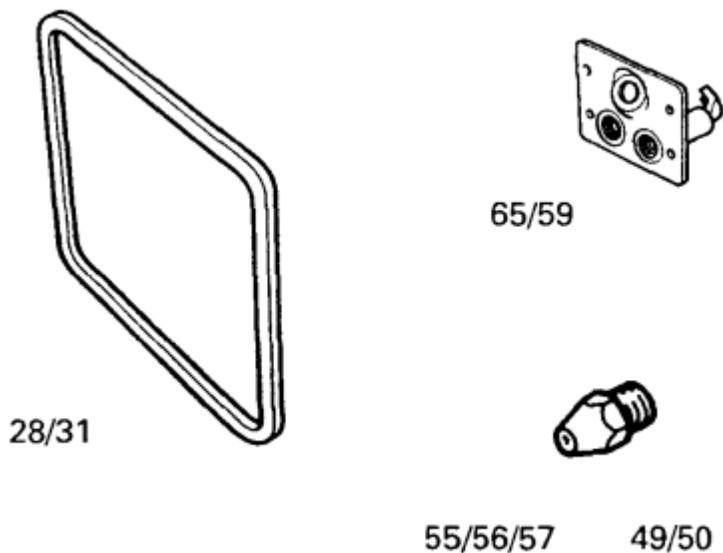
Short Parts List





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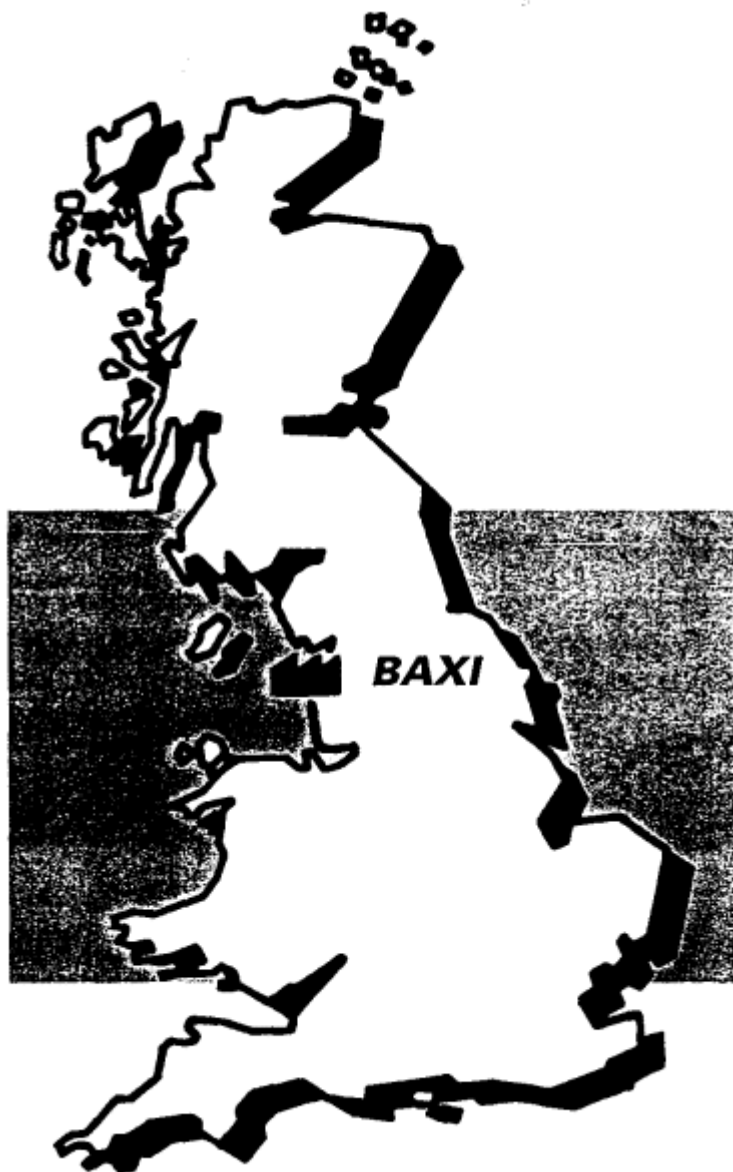
BAXI BOSTON 80/70/60/50/40 OF B.G.C. No 41 077 65/64/63/62/61

Model		Description	G. C.	Manufact'rs
60	80		No	Part No
50	70			
40				
Key	No			
28	31	Seal - Panel Door	364 260	112057
53	44	Kit - Sight Window	364 143	100134
54		Burner - Boiler	383 508	112036
	46	Burner - Boiler - Aeromatic	383 509	112012
	49	Injector - Stereomatic		
		6 x 1.3mm (80 OF)	364 332	112051
	50	Injector - Stereomatic		
		6 x 1.2mm (70 OF)	364 339	112050
55		Injector - Stereomatic		
		6 x 1.55mm (60 OF)	364 330	112040
56		Injector - Stereomatic		
		6 x 1.4mm (50 OF)	364 331	112060
57		Injector - Stereomatic		
		6 x 1.3mm (40 OF)	364 332	112051
59	52	Valve - Control		
		Honeywell V4600 C	393 180	062623
65		Burner - Pilot	364 341	110028
	59	Burner - Pilot		
		Honeywell Q359A 1058	391 707	082211
68	61	Injector - Pilot		
		Honeywell 0.38/0.35 A	364 282	112011
66	62	Electrode - Pilot Ignition		
		Kigass E3396	387 852	102024
67	63	Lead - Electrode	183 628	042740
71	64	Thermocouple - 18"		

		Honeywell Q3909 A	390 131	102005
74	67	Kit - Piezo Unit	183 936	040456
77	70	Arrester - Lint	364 340	110069
80	74	Thermostat		
		Ranco GI P1004	382 387	112025
81	75	Knob Thermostat	364 287	231212

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